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ABSTRACT

This is one of a series of units for environmental education developed by the Highline Public Schools. This unit was designed for the fourth-, fifth-, and sixth-grades to learn about ecology with the use of creative drama. The six lessons can be interchanged in any way that fits the needs of the class. Use of all six lessons should take about two weeks, but time will vary depending on how each class works. The materials were tried and evaluated; evaluation data may be obtained from the Highline Public Schools. (RH)

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AUSEN PAK

ACTING FOR ECOLOGY

by Wayne Ausen

An Environmental Learning Experience for use at the Intermediate grade level. One of many ELE Paks available in all areas.

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SE 021 451

NATURE KNOWS BEST

PROJECT ECOLOGY TITLE III

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The Readers Who Studied, Critiqued & Offered Suggestions & Ideas for Improvement

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Evaluation Results Regarding This ELE May Be Obtained by Including This Page and a Self Addressed Stamped Envelope To

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EVERYTHING IS CONNECTED TO EVERYTHING ELSE

PROJECT ECOLOGY

EVERYTHING MUST GO SOME WHERE

PROJECT ECOLOGY • TITLE III

THERE IS NO SUCH THING AS A FREE LUNCH

PROJECT ECOLOGY TITLE III

NOTES TO THE TEACHER

This unit was designed for 4th, 5th, and 6th grades to learn about ecology with the use of creative drama. The lessons can be interchanged in any way that fit your needs. It should take about two weeks to run all the lessons. Time will vary depending on how each class works. By using creative drama to teach ecology the biggest benefit is the student's use their own past experiences to become aware of new experiences with a better understanding of the world around them.

CONCEPTS

1. There are a vast number of things that make up environment.
2. Many cycles are found in nature.
3. Litter is a very hard thing to fight or if you're not part of the solution, you're part of the pollution.
4. Awareness of the world around leads to a better understanding of ecology.
5. The future: no man knows what it will be like but he can predict what it will be like.
6. Getting other people to become aware of ecology is one way to help the environment.

MASTER MATERIALS LIST

Paper and pencils
Room to act in
An object that can be passed from hand to hand
Four signs or boxes that read: Clouds
Condensation
Ocean
Evaporation
12 x 12 tarp or parachute
Old newspapers
A small litter bag
Note cards
Ditto copies of the song The Year 2000 - Waskowitz Book
Mission Inpassable assignments
Envelopes
Ditto copies of the song, The Pollution Song

LESSON 1

CONCEPT: There are a vast number of things that make up environment.

MATERIALS: paper and pencil
room to spread out in
object that can be passed from hand to hand

PROCEDURE & ACTIVITIES: (Warm-up circle game)

1. How to play the game.
   a. Form class into a circle.
   b. One student is picked as IT, and moves to the center. He shuts his eyes and turns slowly around in place.
   c. The object is passed around the circle from hand to hand.
   d. IT (at any time he chooses) says "STOP".
   e. The object is then stopped and the one holding it is caught.
   f. IT then gives the one who was caught a letter from the alphabet (not Q, X, or Z, because they are too hard)
   g. The object is then passed as fast as possible around the circle.
   h. The one who was caught tries to name six nouns that start with the letter given by IT before the object goes twice around the circle.

      If the one who was caught does <u>not</u> name the six nouns before the object goes around the circle twice he is <u>IT</u> and the game starts over again.

      If the one who was caught <u>does</u> name the six nouns before the object goes twice around the circle <u>IT</u> remains <u>IT</u> and the game starts again.

      To make sure all students get to play - have them pass the object on to the right if they have already been <u>IT</u>.

   Here are some examples of what the students <u>might</u> name as six things when playing the game:

Letter "A"	apple	Andy
	ape	aardvark
	arch	axle
Letter "B"	bird	bugs
	bike	bread
	bee	boy

2. When everyone has had a chance to play the game, have them sit down on the floor and begin discussions.

EVALUATIVE ACTIVITY:

1. Discuss the things that the students came up with while playing the game.

   a. Explain that most of the things they listed came from the world around them and fit a science called ecology which deals with relationships between living organisms and the world around them.

   b. Ask if they can remember any of the things listed that they think fit into the science called ecology.

   c. Ask if they can remember any of the things they named that might fit the world around living things

   d. Explain that the world around any living thing is called environment.

   e. Ask if they think all living things have the same environment.

   f. Ask if they can match living things and their environments.

2. Have the students make a list of three different environments with three different kinds of living organisms from each environment.

ADDITIONAL ACTIVITIES:

1. Form groups and discuss lists.

2. Ask the students to be aware of relationships between themselves and other living things on their way home from school.

3. The game may be played again but using:
   a. non-living things only
   b. living things only
   c. things from the soil only
   d. things from the water only

LESSON 2

CONCEPT: Many cycles are found in nature.

MATERIALS: Room to work in
Four boxes or signs that read: Clouds
Condensation
Ocean
Evaporation

PROCEDURES & ACTIVITIES:

1. Warm up (polluted)
Have the students stand where they can't touch each other. Ask them to concentrate on their left foot to make it become polluted, to really feel that foot as polluted. Have them add to the polluted left foot, one at a time, the following:
   A. right foot
   B. left and right legs
   C. back
   D. shoulders
   E. arms
   F. hands
   G. face
   H. move around polluted (without touching anyone else!)

   Next in a reverse procedure have all polluted parts return to normal until only the left foot is polluted then stop and relax.

2. The cycle of water.
Explain to the students that they are now going to act out the different parts of a cycle, and a cycle is like a circle.

   Form the class into a large circle.

   Ask: *Do you know where water comes from?* (clouds)

   1st try on: Ask: *Remember any cloudy day. Try and feel like a cloud - puffy, light, floating, high in the air.*

   Have them move around the circle like clouds. (encourage them)

   Stop, relax.

   2nd try on: Ask: *Do you know in what form water comes from the clouds?* (rain, snow, sleet, hail) Explain that condensation causes rain. *Try and remember a rainy day and try and move like falling rain.* (This will not be easy so mucho encouragement)

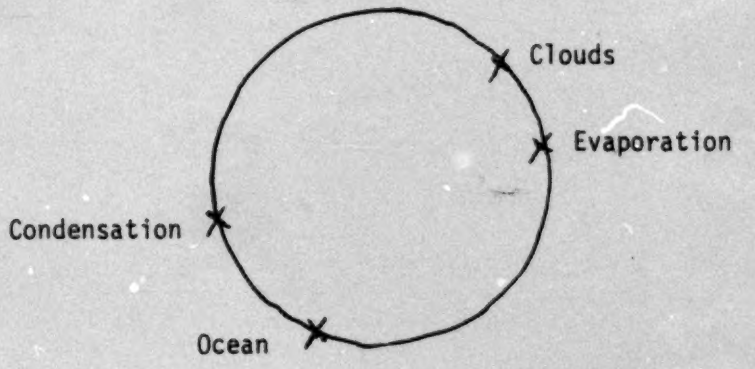
   Moving in the same direction around the circle have the students move like rain. Stop. Relax.

   3rd try on: Ask: *Try to think of what happens to the rain after it falls. Where does it go?* (lakes, rivers, ponds, streams, and so on until the ocean)

Ask: *Think of the ocean. How it looks, feels, sounds and moves. Move around the circle in the same direction like the ocean.* Encourage them. Stop. Relax

4th try on: Ask: *What is evaporation? Can it be seen? Felt?* Explain that water moves from the earth to the clouds by evaporation. Have them move around the circle as evaporation. Encourage them. Stop. Relax.

Get the boxes or signs out. Set them up around the circle at various points. In order of the water cycle giving the clouds and ocean the most space.



Have the students look to see what part of the cycle they are standing at in the circle. Explain that when you say go they will move around the circle and change from one part of the water cycle to the next as they pass each sign. (It might help to use four students to stand at each station and verbally tell what movement to change to.)

After running it once, evaluate and run it again.

EVALUATIVE ACTIVITIES: Have the students sit down on the floor where they are in the circle. Discuss the water cycle and it's parts, also how it is like a circle. Ask them to name some other cycles they are aware of.

EXTRA ACTIVITIES: Try acting out some of the cycles the students came up with. Divide the class into groups. Have each group research a different cycle and report to the class the following day.

LESSON 3

CONCEPT: Litter is a very hard thing to fight or if you're not part of the solution, you're part of the pollution

MATERIALS: Room to move around
12 x 12 tarp (or bigger) or a parachute
old newspapers
one small litter bag

PROCEDURES & ACTIVITIES:

1. Warm up - movement - slow and fast
Have the students move to a place where they can't touch another. Explain that they are to move as fast (and safe) as possible stopping to jump as high as they can every once in a while.

Do it. Stop. Relax.

Next explain that they are going to move slow and heavy.

Do it. Stop. Relax.

Split the class into two groups. Explain that one group is to do the fast movement, the other the slow movement. When you say "change" they change from fast to slow or slow to fast.

Do it. Stop. Relax

2. Litter skit.
Bring out materials. Put the tarp down in the center of the room. (If it is possible to use the gym do so, because of noise and of needed space.) Have one student hold the litter bag. Hand out newspapers to 3 or 4 students. Split the rest of the class into two groups. (one assigned the fast movement, one the slow) *Ask each member of the groups to pick a color, but not to tell anyone what it is. Spread the class around the tarp. Explain to the students with the newspapers they are going to walk around on the tarp yelling out different colors and tearing the newspapers into bits and throwing them into the air. (ask them to try and keep the paper on the tarp as much as possible) Explain to the students in the two groups that they will change their movements when their color is called out by the paper people. Explain to the litter bag person he is to try and pick up as much of the litter as he can with his little bag and when he sees that all the paper has been used up by the paper people he is to yell (I QUIT). Explain to the whole class that then <u>everyone</u> will <u>freeze</u>. The litter person will then sit on the tarp among the litter. Tell the rest of the students to move off the tarp, take hold of its edge, fold the litter and litter person up and drag everything off (out of the room if possible -- picking up any litter which might have fallen off the tarp.)

*Names of animals, pronouns, different kinds of pollution, or almost anything that will add action changes to the skit may be used.

EVALUATIVE ACTIVITY: Critique the skit. Discuss improvement, run again.
1. fast people denote a fast busy world not caring
2. slow people too lazy to care

ADDITIONAL ACTIVITIES:

1. Discuss the effects of litter on the environment. Make anti-litter posters.

2. Sing The Pollution Song

THE POLLUTION SONG
(To the tune of The Yellow Rose of Texas)

Oh, Pollution is our problem,
We're killing off the air--
We're poisoning the water,
And stripping nature bare---
It really isn't funny,
It really isn't fair--
Pollution is our problem, man,
And no one seems to care.

There's oil in the ocean,
Monoxide all around--
The population's growing,
There's litter on the ground
We wonder where we're headed,
We wonder where we're bound--
Will we become a graveyard,
On the banks of Puget Sound?

3. Skit should be given for another class the following day.

LESSON 4

CONCEPT: Awareness of the world around leads to a better understanding of ecology.

MATERIALS:
Room to work in
Paper and pencils
Note cards

PROCEDURES & ACTIVITIES

1. Awareness
   Have the class sit on the floor with their paper and pencils. Ask them to explain verbally how they feel and what they see when they are:
   a. walking in the rain
   b. going to a friend's house
   c. eating ice cream
   d. riding a bike on a sunny day
   e. taking the first swim of the summer
   f. walking on a beach
   g. visiting people they have not known before
   h. watching birds fly
   i. done with a book they have enjoyed
   j. getting up on a Saturday morning

   Explain that anything they can remember of the things they felt and saw involve awareness. And awareness is a very good asset to life. Explain that now they are going to take a test on how aware they are to things around them.

   Test: Have the class turn around so they can't see you.
   a. What kind of shoes am I wearing?
   b. What color are my eyes?
   c. Is there anything new in the room? (if so, what?)
   d. Is today's correct date on the board?

   Have the students check their own test by facing you. Divide the class into groups of threes.

2. Street acting
   Have each group pick a type of animal. Give each group a note card. Have them write the type of animal they picked on the card. Explain that they will have 10 minutes to work up a skit. The skit will be acted out as a man with the characteristics of the animal they have written on the note cards. Explain that one member or two or all may act out the action. Run the skits. Have the students try and guess the animal being depicted. Critique.

EVALUATIVE ACTIVITY: Discuss the benefits of awareness.

Assign each student to pick a friend and make a list of 5 things they were not aware of until they took a closer look. (Awareness list to be turned in the next day and discussed).

ADDITIONAL ACTIVITIES: Mix all the note cards up. Pass them out and have two or three students act out humans with animal characteristics trying to do some task. i.e. shopping, eating an apple, making a pie, jumping rope, playing football, etc.

LESSON 5

CONCEPT: The future: No man knows what it will be like but he can predict what it will be like.

MATERIALS: Space to act in
Paper and pencils
Ditto copies of the song The Year 2000

PROCEDURES & ACTIVITIES

1. Warm up (Machine)
Form groups of 7 or more. Use one group at a time. Have the others watch. The machine is made by one student starting an action which he feels is part of a machine's movement along with a machine noise. Then one by one until all the group members are used add on to the machine with different movements and noises. Stop. Repeat with the other groups. The teacher can regulate the machines by pulling a fake plug to start and stop them. Encourage the noise! One giant machine can also be made.

2. The Year 2000
Have the class sit on the floor. Explain that no one knows what the future is going to be like but people do have some ideas. Some good, some bad.

Good: space travel
living under the sea
longer life
fantastic machines
robots
colonizing another planet

Bad: food shortage
nuclear war
air pollution
population explosion
the end of the world

Ask the students if they have any idea what the world will be like in the year 2000. Have them figure out how old they will be in 2000 AD. Sing the song, The Year 2000. Have the class get in the same groups they had for the machines. Explain that each group is to work up a play about the year 2000, and the plays should involve something about what the environment will be like. Explain that each play should have: a beginning, a middle and an end. Here is an example of what the plays might be like.

A brother and sister having breakfast. They push buttons to get pills with such appetizing names as french toast, ham and eggs, and so on. After breakfast they ask their mother (who is having a beauty treatment from a robot) if they can go out to play. The mother says, "yes". The brother and sister get their robot dog and robot doll and go outside. They start to play. After a few moments they cough and gasp for air. The robot dog and doll grab them and bring them inside. The brother and sister (when they can breathe again) complain about the environment. The mother says, "What's this world coming to? I remember when I was a child we could stay outside all day with-

out once complaining. OK you two, come on into the lung washer then off to bed." All exit.

End

Give the class about 15 minutes to work on their short plays then run them and critique.

EVALUATIVE ACTIVITIES: Discuss the different possibilities about the future that the plays brought out.

I. Explain the general situation.
   a. cities
   b. travel
   c. nations
   d. the environment
   e. pollution
   f. the population

II. What these might be like
   a. cars
   b. family living and conveniences
   c. how will the Army and Navy operate?
   d. the environment - pollution?
   e. recreation

III. The conclusion
   a. is the year 2000 going to be too modern for man
   b. what about leisure time?
   c. is there going to be peace?
   d. what about pollution problems?
   e. the population problem?
   f. food supply for the world?

IV. Assign each student to write a paragraph about a morning in the year 2000.

EXTRA ACTIVITIES:
1. Have the students draw two pictures of the year 2000. One of something that could be <u>good,</u> one of something that could be <u>bad.</u>

2. Have the students pick one thing from each topic and write about it.

LESSON 6

CONCEPT: To have the students try and get other people aware of ecology.

MATERIALS: Mission Inpassable assignments
Envelopes

PROCEDURES & ACTIVITIES:

1. Warm up
Explain to the class that part of them are going to leave the room and be called back in one at a time. Another student will then try and get them to perform a task (assigned by the teacher). But the only words any of the students can use are A, B, C, D. The student giving the task must sit on a chair in the middle of the room. He may use his hands to gesture with, but he cannot leave the chair.

(It is best to send 4 students out of the room at a time, assign 4 tasks, then repeat as often as interest lasts.)

Examples of tasks:
   a. turn the lights on and off
   b. pick up paper off the floor and throw it away
   c. pull a shade down
   d. do 3 pushups
   e. open a window
   f. close a window
   g. sharpen a pencil
   h. clean up a mess
   i. sit in a certain chair
   j. stand on a chair and pull the movie screen down

2. Mission Inpassable for ecology
Have the students sit down on the floor. Explain that as they know being aware of things help us understand more about our environment, but getting other people to see the importance of awareness is also important. That if more people became interested in ecology (the science of relationships between living organisms and the world around them) our own environment would be better. So today you are going to become members of Mission Inpassable for Ecology. You will be given by teams of four an envelope with a mission to try and carry out within twenty four hours. Don't let anyone outside this class know that you are on a mission inpassable for ecology. (Assign the groups of fours). Pass out the envelopes. Students may start their missions at this time.

The missions can be take from anything around your school that could lead to getting others to become aware of ecology.

Here are some examples:
1. Here is your mission:
   Gather 2 bags of litter from the playground with the help of students from other classrooms. (Remember do not let anyone know you are on a mission inpassable for ecology). Good luck

2. Here is your mission:
Write a letter to each teacher in this building asking them to become aware of ecology. (Remember not to sign the letters or get caught putting them on the teacher's desks. Also remember that no one is to know you are on a mission inpassable for ecology.) Good luck.

3. Here is your mission:
Each member of your team make a poster asking people to help make the environment a better place. Put the posters up in various places around the school. Do not get caught putting them up. (Remember tell no one that you are on a mission inpassable for ecology). Good luck.

4. Here is your mission:
Each member of your team make an awareness list of any living thing (except humans) that we share our school environment with. Get some students from other classes to help you with the lists. (Remember to tell no one that you are on a mission inpassable for ecology). Good luck.

5. Here is your mission:
Keep your spy eyes open. Each member of your group watch and see if you can catch a litter bug. Ask them nicely to pick up their mistake. Explain to them that they are hurting the environment. If they don't care - you do, pick it up. (Remember, no one is to know you are on a mission inpassable for ecology.) Good luck.

6. Here is your mission:
Find a container that can be used as a waste can. Fix it up so it begs to be used. Take it to the playground and get people to use it. (Remember, no one is to know you are on a mission inpassable for ecology). Good luck

7. Here is your mission:
Each member of your team make 10 buttons that read "I'm for Ecology". Then find people from other classes to wear them. (Don't forget to explain to them what ecology means. Also remember no one is to know that you are on a mission inpassable for ecology). Good luck.

8. Here is your mission:
Each member of your team try and find out another team's mission and do it. No one on your team may do the same mission. (Remember no one is to know you are on a mission inpassable for ecology.) Good luck.

EVALUATIVE ACTIVITIES: The following class day discuss the missions. Have each group explain what their mission was and if it was successful.

EXTRA ACTIVITIES: Have each group write a mission inpassable for ecology. Exchange them and carry them out.